WEDGE-TAILED EAGLE TERRITORIES, BENDIGO REGION, 2011 -2019

Daryl Fleay 2020

I have had an interest in local Wedge-tailed Eagle territories for over 50 years. Since retiring in 2011 I've devoted more time to this interest and have kept track of most of the eagles around Bendigo and surrounding areas. Eagle territories cover a mixture of public and private land and I always obtain land-owner permission before entering private property. The following is a summary of my observations, commencing with territories within easy reach of Bendigo.

NESTS IN THE MOUNT ALEXANDER AREA

Mount Alexander is located in Granite terrain in North Harcourt, Central Victoria. It presently has a large rabbit population and supports four separate Wedge-tailed Eagle territories.

The high territory density on Mount Alexander is quite unique in that the average size of each of the active territories is much smaller than in other parts of the region. There are two likely reasons for this unusual occurrence. Firstly, it is obvious that eagles would be attracted to this Granite territory due to the abundance of food (mainly rabbits) and secluded nest sites it offers. Secondly, the birds may have been forced to relocate to the area following an increase of human intrusion into their existing territories.

Mount Alexander South-east Territory

My post-retirement eagle search began late in 2011 when one of my workmates informed me that Wedge-tailed Eagles were hunting on a farm property in the south-east section of Mount Alexander. The fact that the birds were hunting at this time of the year was a sign that they were likely to have a nest nearby and were busy feeding hungry chicks. I located the nest on 3 November in a large Red Gum on an East-facing slope in the south-east corner of the Mount Alexander Forest. The nest contained two chicks.

In 2012, I returned to this nest during June and August, and found no signs of activity. I now believe that the eagles used a new nest further down the slope for the next three nesting seasons. Then in 2015 the birds successfully bred a single chick in a new nest not far from Joseph Young Drive. For the following seasons (2016-2019) the birds returned to their original nest.

Mount Alexander North-east Territory

On 21 August, 2012 I observed a male eagle in the sky over to the north of the summit of Mount Alexander, leading me to suspect that another pair of eagles was nesting somewhere in the north-east section of the mountain. My suspicion was correct, as later in August I was taken to a group of three east-facing eagles nests in the very spot that I had expected them to be. The middle nest (higher up the slope) was active. On 10 November I re-visited the nest and discovered that it contained one six-week-old chick.

In 2013, the eagles used one of the older nests, just north of the 2012 nest. I became aware of this on 30 July. I re-visited the nest on 22 October and photographed the two four-week-old chicks. The birds used this nest again in the 2014 season, again rearing two chicks. I returned to the nest on 29 November and photographed the now fully grown chicks. In the 2015 season the birds reared two chicks in a new nest just south of the older nests. The nest contained what appeared to be three eggs on August 7. This nest was used again in the 2016 season.

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I wasn't able to locate a nest in this territory in 2017 but I now believe that the birds were probably in a nest about 1 kilometre north of their other nests. I discovered this nest in 2018 and it was active in that season and also in the 2019 season.

Mount Alexander South-west Territory

The third eagle territory is centred on the McQuillans Road area in the south-west section of Mount Alexander. On 30 August, 2012 I located an active nest on an east-facing slope in private property about 300 metres west of McQuillans Road. I returned on 2 November, by which time the nest contained one chick. The eagles used this nest again during the 2013 nesting season, once again rearing one chick.

I was unable to locate a nest in this territory in the 2014 season, even though there were eagles present in the area. In the 2015 nesting season I found an active nest on the opposite side of the valley, in the Mount Alexander forest. The eagles raised two chicks in that year and had probably also nested there in 2014. This nest was active again in the 2016 season.

The eagles used a new nest for the next three seasons. The nest is located on private property to the west of the north end of McQuillans Road.

Mount Alexander North-west Territory

I suspected that was another eagle territory on the west side of Mount Alexander, having observed eagles north of the Oak Forest on a couple of occasions. I also knew of an unused nest in this area. During 2015 I located an active nest further north in this north-west section of Mount Alexander. This nest was again active in 2016, 2017, 2018 and 2019.

Mount Barker

I was taken to an active nest on the west side of Mount Barker on 10 November, 2011. The nest contained two mature chicks. One of the chicks flew from the nest while I was there.

On August 7, 2012 I returned to this territory and found a new active nest (east-facing), about 500 metres from the 2011 nest and on the opposite side of Mt Barker. The new nest was obviously an older nest that had been re-furbished, and it was now very large

By 1 October the nest contained two chicks (approximately two weeks old). The property containing this nest is now owned by the Dja Dja Wurrung Clans Aboriginal Corporation. This nest site is thus particularly significant as the Wedge-tailed Eagle (Bunjil) is the ancestral Creator Spirit in the culture of the Dja Dja Wurrung.

In 2013, the eagles returned to the nest on the west side of Mt Barker and reared two chicks. They continued to use this nest in each of the following four seasons, rearing two chicks each year.

In 2018 the birds returned to their other nest, on the East side of Mt Barker, again rearing two chicks. This is a very productive pair of eagles.

In the 2019 season the west nest was active. I'm unaware of the number of chicks reared in that year.

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It’s interesting to note that this pair of eagles chose a west-facing nest in seven of the nine years that I observed them. West-facing nests are seldom favoured by Wedgies due to their exposure to the sun during the hottest part of the day. However, this particular nest was quite secluded, being well shaded by a thick canopy and surrounding branches. The alternative east-facing nest was much more exposed to human activity, so the birds were very clever in their choice of nest sites.

Mount Prospect

This territory first came to my attention over 20 years ago when there was an active eagles nest on the Eastern slopes of Mount Prospect. In 2015 I was shown a disused nest on the northern side of Mount Prospect. There were two adult eagles and a new fledgling in the area at this time. A new nest appeared in the same tree in 2016 and a pair of eagles raised a single chick there in that season. The same nest was used in 2017 but I’m not sure of the outcome of this nesting event.

In 2018 the eagles refurbished an old nest on the west side of Mt Prospect and raised two chicks there. Although there were eagles present in 2019 there were no signs of nesting activity.

NESTS IN THE RAVENSWOOD/LOCKWOOD AREA

The Ravenswood eagle territories are centred in an area some eight kilometres north-west of Mount Alexander. There are three territories at Ravenswood. These territories are relatively small, their centres (i.e. active nests) being only 2.5 kilometres to 3.5 kilometres apart. A likely reason for this ‘crowding’ of territories is the abundance of rabbits in the area, supplemented by other avian prey species (notably Ravens). Another reason for this territory density would be increased human intrusion in older territories closer to human habitation.

Ravenswood East Territory

As a youth I remember visiting the ‘Waterfall Nest’, a spectacularly large nest high in a giant River Red Gum to the east of the railway line in Ravenswood. In January, 2012 I returned to the tree to discover no sign of the nest, but there were eagles in the vicinity. I returned in May and thoroughly searched the area to the south of the Waterfall nest, locating two old nests and a newer nest (on a north-facing slope) that seemed to be in good condition. On 15 August I returned to the area and discovered that the newer nest was active. The eagles reared a single chick that year.

The eagles used this nest again in 2013 but abandoned the nest mid-season. They returned to the nest in 2014 and reared a single chick. The nest was again active in 2015, 2016 and 2017. I have seen no further signs of activity at this nest.

Fogartys Gap Territory

Having seen eagles in this area on a number of occasions and with memories of a disused nest I saw south of Fogartys Gap about 15 years earlier, I suspected that this was an active eagle territory. I began my search in 2012, a year in which rabbit numbers appeared to be very healthy in the Ravenswood area.

On 13 August 2012, I spent several hours searching the hills on the west side of the Calder Freeway, eventually seeing a male eagle flying quite low in the sky above me. The sight of a male eagle acting this way at this time of the year alerted me to the possibility that the female may be sitting on a nest

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not too far away. Within ten minutes of sighting the male, I was watching its mate flying from a large nest on a steep north-east-facing hillside, just south of Fogartys Gap. I also noticed that there was a second (older) nest lower down in the same tree. A single chick was raised in that year. Two chicks were raised in each of the 2013, 2014 and 2015 seasons. Interestingly, in 2013 this nest was active on June 28 – about two weeks earlier than is normal for local Wedgie territories. Over the summer of 2014 a new house (and shedding) was built approximately 400 metres from the eagles nest. I suspected that this might cause the eagles to vacate the territory but was delighted to see that they returned to the same nest in 2015.

I wasn't able to locate an active nest in 2016. In 2017 I found a new nest some 700 metres south of the 2015 nest. I suspect that this nest was also used in 2016. In the 2018 and 2019 seasons I've failed to locate an active nest in this territory, despite the presence of at least one eagle on each visit.

Mount Gaspard Territory

Another nest I remember from my youth was located in the hills on the north side of the Ravenswood/Maldon road near Mount Gaspard. I searched the area in April, 2012 and found a promising nest quite close to the one I visited several decades earlier. The new nest was an extremely large structure, located on a north-facing hillside. I returned to this nest on 15 August, and the female was sitting. Two chicks were reared in that nest in 2012, 2013, 2014 and 2015. The nest wasn't active in 2016 but was active in each of the following three years.

North Ravenswood Territory

This territory came to my notice in 2018 after I heard that it contained a nest with **three** chicks – an extremely rare occurrence for Wedge-tailed Eagles. I naturally photographed the nest so that I could prove that this special event did occur. The land-owner insisted that this wasn't the first time these birds had produced three offspring, and that the nest had been in use for many years.

The nest was again active in 2019, producing two chicks.

Lockwood South (Hokins Road)

I became aware of this territory in 2017 after being told of a nest in the top of a tree that was clearly visible from Hokins Road. I did a brief search of the area in August of that year and observed that the eagles were using a new nest in a concealed location close to their old nest. This nest was probably used in the next season as well, before the pair refurbished and re-used their original nest in 2019.

TERRITORIES ALONG THE BIG HILL RANGE

The Big Hill Range, located south of Bendigo was once a favoured area for Wedge-tailed Eagles. It contains areas of Granite terrain, mature dry forest and open farmland and is home to a reliable rabbit population. I am currently aware of only two active eagle territories along the Big Hill Range. A third territory in Lockwood South has become inactive in recent years.

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Mandurang South Territory

In the mid-1960's I found an active nest in a steep north-facing gully near the top of the Big Hill Range in South Mandurang. I revisited the area in 2012 (half a century later) and was amazed to find that the old nest was still there. When I returned on 3 November I found that the nest had been refurbished and contained a single chick (about 8 weeks old). This nest was active again in 2013 but sadly the single chick perished on 13 November when the nest tree was blown down in a severe storm.

In 2014 I saw the eagles in the vicinity of the 2013 nest on several occasions from July onwards, and despite searching the entire area thoroughly I failed to locate a nest. On 12 January, 2015 a neighbouring land-owner reported seeing the adult eagles and a single mature chick in the sky, so it would appear that the pair did breed successfully in 2014.

On 22 July 2015 I observed an adult eagle flying from a new nest in a large Grey Box tree at the bottom of the next major gully 500 metres to the north of the old nest. The nest contained green leaves at that time and the pair went on to rear a single chick. This nest was probably built and used in the 2014 season as well.

In 2016 the eagles nested near the top of the Big Hill Range, not far from a house. This nest was active again in 2017. I failed to locate an active nest in this territory in 2018 or 2019 but I was later told that there was an active nest about a kilometre east of the 2017 nest in 2019. This nest may have been used in the 2018 season as well. I have recently seen this nest and it is again active.

Big Hill West (Belvoir Park Road) Territory

Another eagles' nest I remember from the late 1980's was in the Big Hill Range, west of the Calder Freeway. I revisited this area in May, 2012 and located the nest, which was still there but in poor condition in a dead tree. To my delight, I then found a newer nest 200 metres to the west on a north-facing spur, and there were eagles present. On several subsequent visits I failed to locate an active nest in this territory. I limited my search to the gullies on the north side of the Range.

Having failed to locate an active nest on the north side of the Big Hill Range, in 2013 I turned my attention to the gullies on the south side. I re-visited the territory on 27 August and it wasn't long before I found two nests one of which was active (and was probably active in 2012 as well). I set up a small hide on 7 September and photographed the new nest on several occasions. By 6 October, my final visit, the chick was almost fully feathered. On one of my visits I noticed the remains of a small Macropod in the nest. It was probably a young Kangaroo, as these were plentiful in the area at the time.

In 2014 the eagles reverted to the north side of the range and used the newer of the two nests that I found in 2012. On 7 October the nest contained a very mature chick. The eagles used this nest again in each year from 2015 to 2019, rearing a single chick in each season.

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Lockwood South territory

I remember seeing eagles circling over this area over a period of several years. I first searched this hilly forested area to the west of Lockwood South on in July, 2012 and found one old nest and three newer nests. There was an eagle circling above me for part of that day, but none of the nests were used in 2012 or in any subsequent year. I have concluded that excessive off-road vehicle activity in the area would have made nesting impossible.

The only year in which I was able to locate an active nest was 2013, when a young pair of eagles built a very small nest on farmland in the south-west section of the territory. They reared a single chick in that year. I believe that these birds attempted to nest in an adjacent area in 2014 but abandoned the nest early in the season. I have seen no eagles in this territory since 2014.

SEDGWICK TERRITORIES

North Harcourt Road Territory

I have observed eagles in this location over several years. Prior to 2012 the resident pair nested in a privately owned property near the intersection of North Harcourt and Sutton Grange Roads. This property became a residential subdivision in 2012. The pair also had a nest near Bald Hill, Sedgwick.

In the 2012 nesting season the pair moved further south. The nest site chosen by the birds was on a west-facing slope and was quite unusual in that it was adjacent to several houses and quite close to the North Harcourt Road. However, the new nest was well-hidden in the dense canopy of a Grey Box tree. The eagles reared a single chick in 2012 and it had fledged by mid-October (which is unusually early for this event). The pair has not nested there since 2012. In 2018 there was an active nest a kilometre from the 2012 nest near Bryden Road, which I assume was the new nest if the North Harcourt Road eagles. The nest contained a single chick in late October.

Mount Emu Territory

This is a large area of hilly, semi-open farmland and is typical eagle country. There are six nests around Mount Emu, and I have regularly seen eagles in the area, but I have only been able to confirm one active nest. The nest is in a large River Red Gum on the east side of the territory and it was only active in 2013. In that year, I saw an eagle fly from the nest on 31 August but on checking the nest on 23 October I found no signs of activity. I suspect that the nest had been abandoned, as I was told later in the year that an adult eagle had been seen on the ground next to the Sutton Grange road near the nest location. The bird was apparently in a dazed, confused state so it may have been poisoned. In July, 2014 I checked all of the nests around Mt Emu and saw no eagles, nor any signs of activity. I now believe that it’s likely that the North Harcourt Road and Mount Emu territories were in fact a single territory.

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Mandurang Territory

This eagle territory was located on a property in Storys Road that has been occupied by the same family for five generations. The resident family members say that the eagles had been nesting on the property for as long as they could remember. The nests were the closest to Bendigo, being only eight kilometres from the city centre.

I visited the property on 20 July, 2012 and inspected two old nests. One of the nests was located in a Red Gum tree alongside Emu Creek. I then noticed a new active nest in an adjoining tree. Unfortunately a severe wind storm in August of that year resulted in the nest falling from the tree. Despite this tragic event the eagles remained in the area. In hindsight, I now believe that the pair nested again in 2012, building a new nest in a secluded gully 200 metres to the west of the ill-fated nest.

In 2013, I searched this territory on 31 August and found that the eagles had resurrected an old nest in a large ironbark tree. This was an extraordinary refurbishment, as when I last saw the nest it consisted of a few scattered twigs. The eagles went on to rear two chicks in that nest. In July, 2014 I checked the 2013 nest and there were no signs of activity, but the eagles were still in the area. During a search of the area I discovered to my amazement that there was a new nest in the tree which contained the ill-fated 2012 nest. There was no doubt that it was a fresh nest built for the 2014 season. This was quite remarkable and shows how adaptable these birds are.

At my final visit on 22 November 2014 both adults were roosting near the nest and flew as I arrived. In the nest were two very mature chicks. 2014 was the last year I saw eagles nesting in this area. I checked in 2015 and there were no eagles or any signs of nesting activity. At about this time a new house had been built in the adjacent private property. The house was within 300 metres of the eagles nest and probably caused the eagles to move further south, into the Sedgewick forest.

In 2016 I was told of an eagles nest in the southern section of the Sedgewick forest, south of Weiner Track. I inspected the nest in July 2016 and found it to be in poor condition, but I soon located an active nest a couple of hundred metres further north. This nest was active and the eagles reared a single chick in 2017, but there has been no further nesting activity in this territory since. There are several illegal mountain bike tracks in this rea of the Sedgewick forest and I believe that this has been a major factor in the eagles disappearance from this territory.

EPPALOCK REGION TERRITORIES

Knowsley Territory

I first became aware of this old territory in 2015 when I was taken to an active nest on the eastern edge of the Knowsley Forest adjacent to a friend's farm property. There was another (older) nest there at the time. In 2016 the eagles built and used a new nest nearby. In the 2017 season the eagles nested 1 kilometre further south and reared two chicks.

There has been no activity in these nests since, but the eagles are still in the area, which leads me to believe that they have been nesting in one of the nearby properties.

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Bells Hill Territory

In 2016 farmer friend of mine who lives in Patons Road showed me two old eagles' nests at the rear of his land. A return visit in August revealed a third nest in a secluded gully in the vicinity of the old nests. The gully nest is the biggest eagle nest I've seen and has obviously been in use over many years. The eagles used the gully nest in 2016 (2 chicks), 2017, 2018 and 2019. I have fears for the future of this territory as there has been a recent rural subdivision in the area adjacent to the gully nest, with new fencing erected not far from the active nest.

Campaspe River Territory

There was an old eagle territory located on the Campaspe River about two kilometres downstream of Lake Eppalock. I visited the territory in 2016 and found several old nests there, located on both sides of the river gorge. On a brief visit in August of that year I discovered a new nest in a Grey Box high up the gorge on the western side of the river. The nest was lined with green leaves and the eagles were perched in a nearby dead tree. On a later visit I discovered that the branch supporting the nest had fallen from the tree, and taken the nest with it. There were no eagles in the area on that day and there has been no nesting activity in this territory since, so I assume that the eagles may have moved further down the river.

TERRITORIES IN THE MALDON AREA

Mount Tarrengower, Maldon

I visited this area in late 2011 and found a couple of nests on the south-western slopes of Mount Tarrengower. One of the nests was in good condition but was not in use at that time.

On 31 August, 2012 I met up with a couple of Maldon locals who took me to two nests. One was in a very exposed position on a north-facing slope near the top of the mountain and had not been active for several years prior to 2011. The other nest was on the west side of the mountain and was active in 2011 and again in 2012 and 2013. The eagles reared two chicks there in 2012 and a single chick in 2013.

In 2014 one of the older nests further south was active. The eagles made a late start in this nesting season so it was no surprise that they abandoned this nest late in October before their eggs hatched. I came to the conclusion that perhaps the eggs were not fertilised, or that the birds had started their breeding cycle too late in the year. Had the eggs hatched during November, the young chicks would have been exposed in an open nest at a time of the year when temperatures in this region can be very high. Wedge-tailed Eagles are very intelligent creatures and would be aware that summer was on its way, so they may have had little choice but to abandon the nest.

In July 2015 I discovered a new active nest just north of the 2014 nest. I didn't follow the progress of this nest and failed to find an active nest in the following three seasons, even though there were eagles in the area. I finally found an active nest in 2019 on a south-facing slope in the hills above Carmen's Tunnel, but I didn't follow the progress of this nest. It's quite likely that the eagles had also used this nest in the preceding three years as a friend later told me that this nest had been active in the 2018 nesting season.

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Blue Hills, Bradford (2 separate territories)

This territory is located a few kilometres north of the Nuggetty Rages in a small tract of remote forested hills. During May, 2013 I visited the area and found five old nests. The nests were on east and south east-facing slopes and four of them were in good condition. I saw no eagles but they were obviously active in the area. On 31 July I re-visited all of the nests and also found two more nests. None of the nests was active at this stage, but a male eagle was in the air above me for part of the time. I re-visited the area on 10 September and confirmed that eagles were sitting on eggs on two of the nests (2.3 kilometres apart, which is unusually close). One of the sitting birds was very dark, while the other was lightly coloured and obviously much younger.

I did a final check on the nests on 23 October and found a four-week-old chick in the nest occupied by the older pair. The other nest had obviously been abandoned, as there were no signs of recent activity under the nest tree. The young pair seemed to have had an unsuccessful season.

In September, 2014 a Maldon friend told me that the land that contains these eagle territories is in fact privately owned. A subsequent request to gain access to the land was refused and I was therefore unable to re-visit these promising territories during the next five nesting seasons. I finally got the green light to return to the Blue Hills in August, 2019 and found a new active nest in the north-east section of the forest. I didn't follow the progress of this nest.

OTHER TERRITORIES IN THE BENDIGO REGION

Bald Hill, Marong

There has been an active eagle territory in the open forest west of Bald Hill in Marong for at least twenty years. There are several nests in this relatively small forest and I've often seen eagles in the immediate area. I have only seen one active nest and that was during the 2019 nesting season. I have made very few visits to the area over the last few years so I can't confirm nesting activity there in any other year than 2019. However there is a strong chance that nesting did occur there in other years. I was told that the eagles nested in a large tree to the east of Bald Hill a few years ago, and I have seen that nest.

Shelbourne Nature Conservation Reserve

In 2012 I heard that there was a pair of eagles regularly sighted in a forest reserve in the Shelbourne district, west of Bendigo. On 13 September 2012, I searched the area and found a large, well-concealed nest in a large Grey Box tree. The nest was 20 metres from the ground and had a commanding view to the south-east. The adult female eagle flew from the nest while I was there. I returned to the area on 28 October and the nest contained a pair of three-week-old chicks.

In 2013 I revisited the area and observed that the eagles had built a new nest not far from the 2012 nest. The new nest was in a Grey Box tree on a south-east-facing slope, at a height of about 15 metres. On 10 October the nest contained a pair of young chicks, with pin feathers starting to appear on their wings.

In 2014 I visited the area and saw the female eagle alight from the 2012 nest. By 24 November there was one mature chick in the nest. In the 2015 and 2016 seasons the eagles reverted to their newer (2013) nest.

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In 2017 I visited the territory and saw signs of recent human activity (new dam, considerable chain-sawing activity). There was a new partly-constructed nest but no eagles present. The territory seemed to have been deserted. I returned in 2018 and there was still no eagle activity.

A brief visit in August, 2019 revealed that the eagles had returned to the territory and were re- using their 2013 nest. It seems that they had been keeping an eye on the area and were satisfied that it was safe to return.

Huntly North

The eagles in this territory nested in the same tree in each season from 2012 to 2017. The nest is at a height of 15 metres in the upper canopy of a large Grey Box tree on the western edge of a small forest off Millwood Road. The surrounding land is flat, making it difficult to see into the nest. I was able to confirm that the birds raised a single chick in the 2012, 2013 and 2014 seasons. There has been no activity there since 2017, although I have seen eagles in the area in recent years.

OTHER TERRITORIES IN SURROUNDING AREAS

Pilchers Bridge

On 3 May, 2014 my attention was drawn to a group of three Wedge-tailed Eagles circling over a hill adjacent to Myrtle Creek, near Lake Eppalock. I visited the area on 6 May and found a very big nest in great condition on the north side of Myrtle Creek, about 500 metres north of the Bartys Road culvert. There were skeletal remains under the nest and two eagles were in the sky above. On 7 May I met the landowner, who said the eagles nested there every year and there were always chicks in the nest in October. He told me that I was welcome to visit and photograph the nest.

I revisited the area several times from June to late August, seeing both eagles hunting and circling on three separate occasions. However, from early September the pair just disappeared. This was difficult to understand, as the birds seemed ready to nest when I last saw them. Apart from a sighting of a lone eagle in the area in 2015 I've seen no sign of any activity there since.

Girvan's Hill, Tarradale

There is an old eagle's next to the Calder Freeway on the northern slopes of Girvan's Hill, near Taradale. Located in the main fork of a massive Yellow Box tree on the west side of the freeway, the nest has now almost completely disintegrated. I had often observed eagles in the area over the years.

Returning from Melbourne in August, 2012, I detoured via Taradale to the Taradale Nature Conservation Reserve. I found a disused nest in the northern section of the reserve, but there were no eagles or signs of recent activity in the area. I then completed a circuit of the Reserve, finally locating a promising nest sitting high in a Red Gum tree overlooking a picturesque watercourse on the southern edge of the forest. No birds were present, but the nest was obviously active as it contained fresh leaves and lots of white downy feathers, and there was a large amount of fresh excreta on the forest floor under the nest. I also found a freshly killed Water Rat next to the watercourse, quite close to the nest tree. On the 24th October the nest contained two healthy six-

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week-old chicks and what appeared to be a dead Fox pup (or perhaps a large feral cat). I also found a much older nest nearby.

In 2013 I visited this territory on four occasions, finding no signs of activity other than one sighting of a lone adult male eagle in the vicinity of the 2012 nest. Later in the year I was told that an eagle had been killed on the road near Taradale, so perhaps the male lost its mate.

Since 2013 I haven't seen any signs of eagle activity at Girvan's Hill but a friend called me in around 2017 to tell me that he had seen an active eagles' nest on a private property on the opposite side of the Calder Freeway at Girvan's Hill.

Mia Mia

In early 2016 I heard about an eagle territory in a conservation reserve on a private farming property in Franklins Road, Glenhope (south of Mia Mia). With the permission of the property manager I visited the area and found three wedgie nests. All were in fair condition. In August one of the nests was active. As the nest was well-concealed in a tall Grey Box I was unable to determine how many chicks were raised that year.

In 2017 I returned to the territory in August and observed an adult eagle sitting on another of the nests. This nest was located in a beautiful Candlebark gum tree and was very 'open' so I was able to view it from a distance and also to photograph it later in the season. The nest produced 2 chicks but only one survived. I saw a hunting pair of Peregrine Falcons in the immediate area when the chicks were small, so perhaps they were the culprits.

Though the eagles were around during the 2018 nesting season I could find no signs of nesting activity. In 2019 I was relieved to observe them re-using their 2016 nest.

Newbridge

I have noticed eagles in the Newbridge vicinity on numerous occasions as I travelled through the area. In May 2020 I became aware of a pair of young rescued eagles that were being housed temporarily in a large aviary in Strathfieldsaye. The eagles had been left in the care of Neil Morgan, a well-known and respected local wildlife rescue expert. I was fortunate to have the opportunity to view and photograph the young eagles up close in their aviary, and I also had the privilege of witnessing their release at Newbridge. The birds had been found near a nest to the east of Cemetery Road, Newbridge when they were almost at fledging stage, and both birds had sustained quite severe injuries. Neil nursed them back to full strength before releasing them. As Neil expected, the young eagles were joined by a pair of adult eagles shortly after the release. This was a very special moment for all of those present on the day.

Sunday Morning Hills

During 2012 I came into contact with the Parks Victoria Rangers in Inglewood, who gave me directions to an established Wedge-tailed Eagles' territory in the Sunday Morning Hills, in the northern section of the Kooyoora State Park.

I visited the territory on 7 May, 2013 and located two old nests, but both were in a poor state. I extended my search and located a newer, more promising nest in the forested hills to the west of

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the old nests. I visited this new nest on 21 September and it contained two beautiful one-week-old chicks. In 2014 the eagles re-used the 2013 nest and again raised two chicks. They re-used this nest again in 2015 but abandoned the nest mid-season.

In the 2016 season the eagles refurbished and used one of their older nests. This nest was active again in the 2017 season.

I was unable to locate an active nest during the 2018 season. Early in 2019 I was told that the eagles had a new nest further south, not far from Mt Brenanah. It's likely that they used this nest in the 2018 season. In August, 2019 I located this new nest and it was active. By late November the nest contained two mature chicks.

OTHER AREAS

I am also aware of eagle territories at Tooboorac, Mount Moliagul, Mount Bealiba, Campaspe Gorge (Barfold), Cairn Curran Reservoir, Bears Lagoon, Mount Black (Graytown), Guildford, Newstead (Muckleford Gorge), Bears Lagoon, Inglewood, Serpentine and Bael Bael (near Kerang). At Bael Bael, the resident pair of eagles has nested at the top of a 30 metre power pylon.

OLD TERRITORIES

Most of the eagle observations that I've made over the last few years have been possible due to my knowledge of traditional territories that existed in my earlier life. Several of these territories have not been active for several years, due largely to the encroachment of human activity. These old territories include One Tree Hill (Bendigo), Big Hill/Mount Herbert, Nuggetty Hills (Maldon) and Sedgwick State Forest (southern end).

SUMMARY OF OBSERVATIONS

Having observed eagles in the Bendigo region for over fifty years, I am happy to say that eagle numbers still appear to be healthy. Whether this trend continues will depend upon the extent of future residential development, availability of prey, changes in climatic conditions, the extent of human persecution and a host of other factors. I am encouraged by the willingness of some birds to adapt to setting up territories in more populated locations. (This trend was also observed in the New England area of NSW in the 2007 field study by Debus, et al.)

The main concern that I have is that some of the older established territories have gradually been relinquished (for example, along the Big Hill Range south of Bendigo), resulting in greater territory density in nearby areas (for example, Mount Alexander/Mount Barker, with their five active territories located in close proximity to each other).

Nest location and selection

- When considering all of the active and inactive nests I've located over the last decade, I've noticed quite a definite pattern regarding Wedge-tailed Eagles' choice of nest locations. The birds seem to have a preference for east- and south-facing hillsides, with nests commonly situated at a level which is slightly more than half of the height of the slope. Although this pattern is not always predictable, it can be of considerable assistance when locating nests in a new territory.

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- I note with interest that a survey of Wedge-tailed Eagle nest-site characteristics (Foster & Wallis, 2008) also concluded that nests are normally situated on east- and south-facing hillsides. The authors commented that this gave the chicks protection from the north and west, and shade from the hot afternoon sun. Heat is a major threat during the nesting season, and for this reason most nests are built on an east or south-facing hillside and in a position that affords some shade from the tree canopy.
- The majority of nests I observed were situated on hillsides rather than on flat land. I believe that the birds have a preference for sloping nest sites (where available), giving them an elevated view of the surrounding countryside. The Bendigo region has no shortage of such nest sites, with its extensive areas of hilly country and a soil structure capable of supporting large trees.
- In most cases a territory contains more than one nest, sometimes as many as four.
- The nest selected in a particular season will be refurbished by adding new material to the nest and lining it with fresh leaves. These leaves will be replaced continually throughout the nesting season, thus sanitising the nest to protect the chicks from parasite infestation due to the presence of excreta and decaying prey matter. Rather than refurbish an existing nest, in some seasons eagles may construct a new nest.
- The likelihood of parasite infestation means that eagles are likely to select a different nest each year. This is not always the case, and in the Bendigo region eagles in some of the territories I observed used the same nest for several consecutive years.

Pre-nesting behaviour

- A pair of eagles will begin their pre-nesting activities in about May each year. This will be the time of the year to witness their spectacular 'display' flights, involving aerial manoeuvres like 'pot hooks' (where the bird glides slowly upwards then plummets with its wings folded, and repeats this pattern several times) and 'talon touching' (in which one of the birds rolls over and touches the talons of the other bird, which is flying above it). The best place to view such displays is from an elevated position within a territory, and there is no better place to do this than on Mount Moliagul, west of Bendigo.
- Before nesting commenced the eagles were not usually visible when I first arrived at a nest site, but eventually they appeared briefly either singly or as a pair. Once nesting commenced a more definite pattern of behaviour seemed to develop. It was common for the male eagle to appear (often from a nearby tree) as I arrived in the vicinity of the nest.
- The commencement date for nesting varies to some extent. In the Bendigo region, incubation normally starts from early July to mid-August. Any start later than is more likely to result in nest failure when the chicks become exposed to excessive heat.

Incubation

- Once incubation commences the female will alight from the nest when she deems it necessary, and this decision seems to depend on the disposition of each individual bird, and also on the stage that incubation has reached. More sensitive birds will normally leave the nest the moment they become aware of human presence. Interestingly, nesting eagles have been known to become less sensitive to individual humans (and vehicles) that they have come to recognise. This surprising trait was recorded in a 2007 field study by Debus, Hatfield, Ley and Rose. Over the period of my study I gained the impression that eagles, like

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humans, have individual personalities. This was evidenced by the way that individual birds reacted to my presence in their territory.

- In July and August, the sight of a lone male eagle low in the sky within a nesting area is a sign that its mate is likely to be sitting on a nest nearby.
- The female eagle takes up to 45 days to incubate the eggs and the second egg normally hatches three or four days after the first.

Chick development and feeding

- Once the chicks have arrived there is a noticeable increase in the level of activity at the nest.
- In the early stages of the chicks' development an adult eagle delivers prey regularly.
- In my observation, rabbits are by far the most common prey species. I also observed other prey species, namely ravens, cockatoos, galahs, a fox pup and a small kangaroo.
- The arrival of an adult eagle in the vicinity of the nest is usually accompanied by sounds of agitation from other birds, notably magpies, ravens and sulphur-crested cockatoos. An adult eagle will also announce its arrival to its mate with a yelping 'kee-chook, kee-chook' call.
- In the early stages of rearing, the chicks are gently fed small pieces of the prey carcass in what is a very tender moment shared between the adult and chicks. The adult is careful to ensure that each chick gets its fair share of the prey.
- As the weeks pass the chicks are gradually weened, eventually being left to feed themselves.
- In the later stages of development the larger chick will often dominate in the feeding process, resulting in an adult eagle intervening to feed the smaller (usually younger) chick.
- In the last few weeks before the chicks fledge the adults only visit the nest to deliver prey, which is then eagerly torn apart and eaten by the chicks.

Fledging

- Fledging takes about 75 days and at this point in their lives the chicks are at their most resplendent, with light plumage on their head, back and wings tinged with burnt orange and varying shades of brown. According to Ridpath & Brooker's 1986 survey in arid Western Australia, the light colourings of young eagles changed to brown after three or four years, and eventually to black at six or seven years of age.
- After fledging, the young eagles remain dependent on the adults for several months (over five months, according to the 2007 field study by Debus et al), after which time they enter the most perilous stage of their lives. As inexperienced hunters they often resort to feeding on carrion, some of it along busy roadsides. They are thus more prone to impact with motor vehicles during this period.

PROTOCOLS

Wedge-tailed Eagles are highly intelligent, often extremely sensitive birds. To observe and photograph these beautiful creatures requires much dedication and patience, together with an understanding of sensible protocols. I always adhere to the following protocols in the hope of avoiding nest abandonment, which would be a very sad outcome.

- During the nest building/refurbishment period (around May/June), the incubation period (from June/July to September) and up to the stage where the chicks are about two weeks old I am careful not to venture into the vicinity of the active nest. Brief observations are made from a distance, using binoculars.

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- Subsequent observations are made from a carefully concealed hide, no closer than 30 metres from the nest. The hide is always erected quickly and then left in position for a few days before its use.
- Each time I use a hide I try to arrange for a second person to 'walk in' with me and then leave soon after I enter the hide. This practice is designed to minimise any anxiety experienced by the birds.
- When in the hide I limit any noise and movement, in the knowledge that eagles are very sensitive to human presence.
- When leaving the hide, I do so when the adult eagles are away from the nest, and I then leave the area quietly and calmly.
- To minimise the level of disturbance to the birds, I try to leave a gap of at least four days between visits.
- Another very important protocol I am aware of is the need to obtain land-owner permission before entering privately-owned land. This is a particularly important issue to me as the majority of Wedge-tailed Eagle territories in central Victoria are on private land. I was able to establish and maintain excellent rapport with land-owners by sharing information and photographs with them.

NESTING DATA 2011-2019

TERRITORY		Active?	Nest Used	Tree Species	Height of nest	Aspect	No. Of Chicks *
Mt Alexander South-East	2011	✔	1	RG	13 M	E	2
	2015	✔	2	RG	15M	E	1
	2016	✔	1	RG	13M	E	*
	2017	✔	1	RG	13M	E	*
	2018	✔	1	RG	13M	E	2
	2019	✔	1	RG	13M	E	*
Mount Alexander North-East	2012	✔	1	RG	15M	E	1
	2013	✔	2	RG	12M	E	2
	2014	✔	2	RG	12M	E	2
	2015	✔	3	RG	15M	E	2
	2016	✔	3	RG	15M	E	*
	2018	✔	4	RG	15M	NE	*
	2019	✔	4	RG	15M	NE	*
Mount Alexander South-West	2012	✔	1	RG	12 M	E	1
	2013	✔	1	RG	12 M	E	1
	2015	✔	2	RG	12M	W	1
	2016	✔	2	RG	12M	W	1
	2017	✔	3	RG	15M	E	*
	2018	✔	3	RG	15M	E	*
	2019	✔	3	RG	15M	E	*
Mount Alexander North-West	2015	✔	1	RG	15M	W	*
	2016	✔	1	RG	15M	W	*
	2017	✔	1	RG	15M	W	*
	2018	✔	1	RG	15M	W	1
	2019	✔	1	RG	15M	W	*

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Mount Barker	2011	✔	1	RG	15 M	W	2
	2012	✔	2	YB	13 M	E	2
	2013	✔	1	RG	15 M	W	2
	2014	✔	1	RG	15 M	W	2
	2015	✔	1	RG	15M	W	*
	2016	✔	1	RG	15M	W	*
	2017	✔	1	RG	15M	W	*
	2018	✔	2	YB	13M	E	2
	2019	✔	1	RG	15M	W	*
Mount Prospect	2016	✔	1	GB	10M	S	1
	2017	✔	1	GB	10M	S	*
	2018	✔	2	RG	15M	W	2
Ravenswood East	2012	✔	1	YB	8 M	NW	1
	2013	✔	1	YB	8 M	NW	Ab
	2014	✔	1	YB	8 M	NW	1
	2015	✔	1	YB	8M	NW	*
	2016	✔	1	YB	8M	NW	*
	2017	✔	1	YB	8M	NW	*
Fogartys Gap	2012	✔	1	LLB	12 M	NE	1
	2013	✔	1	LLB	12 M	NE	2
	2014	✔	1	LLB	12 M	NE	2
	2015	✔	1	LLB	12M	NE	2
	2017	✔	2	GB	10M	SW	*
Mt Gaspard	2012	✔	1	GB	10 M	N	2
	2013	✔	1	GB	10 M	N	2
	2014	✔	1	GB	10 M	N	2
	2015	✔	1	GB	10M	N	2
	2017	✔	1	GB	10M	N	*
	2018	✔	1	GB	10M	N	*
	2019	✔	1	GB	10M	N	*
North Ravenswood	2018	✔	1	RG	20M	N	3
	2019	✔	1	RG	20M	N	2
Lockwood South (Hokins Road)	2017	✔	1	GB	12M	S	*
	2019	✔	2	GB	10M	S	*
Mandurang South	2012	✔	1	YB	12 M	N	1
	2013	✔	1	YB	12 M	N	1
	2015	✔	2	GB	12M	E	1
	2016	✔	3	RG	15M	E	*
	2017	✔	3	RG	15M	E	*
	2018	✔	4	RG	12M	S	1
Big Hill West	2013	✔	1	GB	12 M	S	1
	2014	✔	2	GB	9 M	N	1
	2015	✔	2	GB	9 M	N	1
	2016	✔	2	GB	9 M	N	1
	2017	✔	2	GB	9 M	N	1
	2018	✔	2	GB	9 M	N	1
	2019	✔	2	GB	9 M	N	1
Lockwood South	2013	✔	1	GB	15 M	NW	1

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North Harcourt Rd	2012	✔	1	GB	13 M	W	1
Mt Emu	2013	✔	1	RG	15 M	E	Ab
Mandurang	2012	✔	1	RG	15 M	S	Destroyed
	2013	✔	2	RI	8 M	S	2
	2014	✔	1	RG	15 M	S	2
	2016	✔	3	GB	8M	E	*
	2017	✔	3	GB	8M	E	1
Knowsley	2015	✔	1	GB	12M	E	*
	2016	✔	2	RG	10M	E	2
	2017	✔	3	GB	7M	E	2
Bells Hill	2016	✔	1	GB	12M	E	2
	2017	✔	1	GB	12M	E	*
	2018	✔	1	GB	12M	E	*
	2019	✔	1	GB	12M	E	*
Campaspe River	2016	✔	1	GB	12M	E	Destroyed
Mt Tarrengower	2011	✔	1	GB	12 M	NW	*
	2012	✔	1	GB	12 M	NW	2
	2013	✔	1	GB	12 M	NW	1
	2014	✔	2	GB	12 M	SE	Ab
	2015	✔	3	GB	12M	W	*
	2019	✔	4	GB	12M	S	*
Blue Hills	2013(1)	✔	1	GB	12M	E	1
	2013(2)	✔	2	GB	10M	E	Ab
	2019	✔	3	GB	8M	E	*
Bald Hill, Marong	2019	✔	1	GB	12M	E	*
Shelbourne NCR	2012	✔	1	GB	20 M	SE	2
	2013	✔	2	GB	15 M	SE	2
	2014	✔	1	GB	20 M	SE	1
	2015	✔	2	GB	15M	SE	*
	2016	✔	2	GB	15M	SE	*
	2019	✔	2	GB	15M	SE	*
Huntly North	2012	✔	1	GB	15 M	W	1
	2013	✔	1	GB	15 M	W	1
	2014	✔	1	GB	15 M	W	1
	2015	✔	1	GB	15M	W	*
	2016	✔	1	GB	15M	W	*
	2017	✔	1	GB	15M	W	*

OTHER TERRITORIES IN SURROUNDING AREAS

Girvans Hill	2012	✔	1	RG	12M	S	2
Mia Mia	2016	✔	1	GB	15M	W	*
	2017	✔	2	CB	15M	S	1
	2019	✔	1	GB	15M	W	*
Newbridge	2019	✔	1	GB	NA	W	2
Sunday Morning Hills	2013	✔	1	GB	13M	NW	2
	2014	✔	1	GB	13M	NW	2
	2015	✔	1	GB	13M	NW	Ab
	2016	✔	2	YG	15M	NW	*

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	2017	✔	2	YG	15M	NW	*
	2019	✔	3	YG	12M	E	2

* Indicates that I was unable to confirm the number of chicks raised, either due to difficulty in viewing the nest or lack of available time to visit the nest in the period after the incubation stage. Note that for statistical analysis purposes it would be possible to assume the number of chicks raised in these years was equal to the average number of chicks raised in the other years of the survey period. I decided not to use such an estimated average figure for the purposes of this document.

EXPLANATIONS

Nest used – Indicates whether a different nest is used each year, and also whether a nest is used in more than one year of the survey period. Nests are numbered 1 to 4, representing the number of nests in the territory.

Tree Species Codes used are:

RG	Red Gum	**YB**	Yellow Box
LLB	Long-leaved Box	**GB**	Grey Box
RI	Red Ironbark	**YG**	Yellow Gum
CB	Candlebark		

Other Codes Used

Ab Abandoned

Dates – Egg laying/Fledging

As I seldom observed the start and end of each nesting season at every territory I've elected to not provide any dates for these important stages of the nesting cycle for each territory. From my observations over the years I can say with confidence that the date on which the eagles lay their first egg is generally between the end of the first week of July and the end of the first week of August. To commence incubation later than early August would mean that chicks would face the risk of exposure to extreme heat in the nest at the start of summer. Given these dates fledging would occur between mid-November and mid-December.

SUMMARY – NESTING DATA

Breeding success

- The size of each territory in the region has been relatively stable over the study period. I suspect that the number of eggs laid by a pair of eagles is determined by the availability of prey in their territory leading up to the nesting season. Territories in the Granite belt south of Bendigo are favoured by eagles due to the relative abundance of rabbits as prey. For this reason it is common for eagles to raise two chicks in each season in these territories. In addition, these Granite belt territories are generally smaller than other territories in the region.
- Based on the confirmed number of chicks reared over the survey period, the average number of chicks per nest was 1.5.
- 37 different nests had successful breeding outcomes over the study period.

Nest characteristics

- The following table lists the number of active nests in different tree species over the study period.

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Tree Species	Number	% of Total
Grey Box	21	46%
Red Gum	19	41%
Yellow Box	3	7%
Long-leaved Box	1	2%
Red Ironbark	1	2%
Candlebark	1	2%
Total	**46**	**100**

The tree species used were normally the dominant species in that area.

There were no active nests in dead trees.

- Most nests were placed at around two-thirds of the height of the host tree.
- 70% of active nests observed were located on private land.
- The eagles mostly occupied refurbished nests.
- Over the survey period the frequency of nest usage was as follows:
    - 24 of the active nests were only used once.
    - 12 were used twice
    - 2 were used three times
    - 1 was used four times
    - 1 was used five times
    - 4 were used six times
    - 2 were used seven times
- The aspect of nests used over the study period was in the following ratio:

Direction	Number	% of Total
East	21	43%
North-east	3	6%
South-east	3	6%
West	7	14%
North-west	3	6%
South-west	1	2%
South	7	14%
North	4	9%
Total	**49**	**100%**

DARYL FLEAY,
June, 2020

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WEDGE-TAILED EAGLE TERRITORIES

1	Mt Alexander SE
2	Mt Alexander NE
3	Mt Alexander SW
4	Mt Alexander NW
5	Mt Barker
6	Mt Prospect
7	Ravenswood East
8	Fogartys Gap
9	Mt Gaspard
10	North Ravenswood
11	Lockwood Sth (Hokins Rd)
12	Mandurang South
13	Big Hill West
14	Lockwood South
15	Nth Harcourt Rd
16	Mount Emu
17	Mandurang
18	Bells Hill
19	Mount Tarrengower
20/21	Blue Hills
22	Bald Hill, Marong
23	Shelbourne NCR

Active 2019

Inactive

THE GREAT DIVIDING RANGE

GREATER BENDIGO NATIONAL PARK

MOUNT ALEXANDER R.P.

LA LARR BA GAUWA PARK